

135 Nuerland lacks the two raw materials that have played so important a part in the manufacture of primitive tools: iron and stone. Nuer have always been poor in iron objects. Till recently
411 they possessed very few iron spears, cherished as heirlooms, but used instead the straightened horns of antelope and buck, ebony wood, and the rib-bones of giraffe, all of which are still used to-day,
412 though almost entirely in dances (Fig. 11). Wooden hoes were used for gardening, and are still sometimes so used to-day. Iron
301 bells (Fig. 4) are rare and highly prized even at the present time, and in the old days iron rings and bracelets were important pieces of property. Wooden bells and ivory and leather rings and bracelets took their place in common use. Nuer have no knowledge of
325 smelting and little of the blacksmith's art. I have never seen a forge and, though there are certainly some blacksmiths, their art is crude and may be regarded as a recent innovation, at any rate in most parts of Nuerland. Spears bought from Arab merchants are beaten out in the cold.

135 Nuerland also lacks any kind of hard stone. Indeed, outside villages I have never seen a stone. They are sometimes brought
412 from neighbouring areas and employed as hammers, for smoothing
323 metal ornaments, for rubbing skins, and so on. Grinding grain seems to have been a recent introduction. The grinder is made from thornwood and the grindstone from baked marsh mud mixed with finely pounded potsherds (Fig. 12). With clay, mud, and sand, Nuer also make pots, grain-bins, pipes, toys, hearthstones, and firecreens; construct the walls of byres and huts; and coat floors and those parts of homesteads they wish to keep smooth and clean.

137 Nature, which denies them iron and stone, is niggardly in her gift of wood. Large trees are rare. Thornwood and low brush-
322 wood provide timber for building, spear-shafts, harpoon-shafts, clubs (Frontispiece and Plate VIII), pestles, neck-rests, baskets, and winnowing trays. Probably no trees in Nuerland are suitable for carving and Nuer possess no wooden utensils. Even the ebony they use for making spears is not found in their country. Ambatch-trees grow in some parts of the swamp areas and from it is made an object which serves as a parrying stick, tobacco pouch, pillow, and seat (Plate XXIX). Byre and kraal fires are fed with
[372] dried dung, and wood fuel is only employed in the kitchen—grasses and millet stalks sometimes being used as a substitute. Grasses, millet stalks, and some plants are also used for various purposes: rafters, windcreens, thatching, cord, basketwork, &c. Gourds are cultivated for dairy utensils.

237 Lacking iron and stone Nuer thus make use of vegetable and earthy materials instead. Animal products are also a valuable

512 vary much from month to month for there are few seasonal changes
221 at this time of the year. As the river falls it is possible to fish in
226 lagoons and shallows and to bathe on its sandy bed. Then the lagoons
dry up. When the river rises fish swim in the weeds and rushes and
515 along some streams they are easily speared from the banks. The
banks of the Sobat are too steep for this purpose. There are no
longer shallows and bathing is a hasty dip for there is danger from
crocodiles. The grazing grounds are changed from time to time as
they become exhausted and as streams and lagoons dry up. At
233 Yakwac there was succulent pasturage only where marsh plants still
137 retained their moisture at the river end of lagoons. The people are
still in camp when the first rains fall at the end of April or early in
May and then there is everywhere an abundance of pasturage. The
brown bush becomes green and the baked fissured earth a sodden
mire. Dry lagoons become inland flowing streams. The scorching
sun is clouded.

136 On the Sobat we guessed that the first rains had fallen inland by
[132] the migration of wild animals from its banks. Giraffe now left us for
inland pastures where they would not have to face death every time
they approached the river. Other animals likewise moved southwards,
even the gazelle. On the northern bank, however, buffaloes still came
[224] to the river to drink and were attacked by hungry Nuér. Animals
312 and men must obey the seasons and when there is no water except
in inland lakes and lagoons, men, cattle, and wild beasts must drink at
the same places. One can hear them at night cautiously coming
to the pools to drink. When the rains come all leave for new pastures.

99 In May one knows that the move back to the wet season villages
512 will shortly take place not only by cloudy skies and movements of
game, but also by camp activities. The women are the first to leave
322 camp and one meets them along paths, carrying their household goods
233 in rectangular cane baskets. Youths leave camp early in the morning
283 to cut stakes, generally of thornwood, (*bwan*) and they spend a large
513 part of the day shaping them into tethering pegs. They also twist
new cord. The weather being cooler people do not feel so keenly the
221 need to sleep towards noon. Everyone is becoming restless and